REMARKS

Claims 1-6, 8-18, 21-23, 26 and 27 were rejected under 35 U.S.C § 103(a) as being obvious in view of Dandoy (U.S. Pat. Pub. No. 2004/0230954), hereinafter *Dandoy*, and further in view of Kobayashi (U.S. Pat. No. 6,633,888), hereinafter *Kobayashi*. Claims 19 and 20 were rejected under 35 U.S.C § 103(a) as being obvious in view of *Dandoy* and further in view of Bates et al. (U.S. Pat. No. 6,961,924), hereinafter *Bates*.[1]

By this amendment claims 1, 21-23, 26 and 27 have been amended.[2] No claims have been added or cancelled. Accordingly, claims 1-6, 8-23, 26 and 27 are pending, of which claims 1, 21, 23, 26 and 27 are the only independent claims at issue.

The present invention is generally directed to attributed debugging. For example, claim 1 defines a computer-implemented attributed debugging system that includes a processor, system memory and a debugger that facilitates debugging of a computer software application, the debugger obtaining from a computer user one or more attributes for attributed debugging, the attributes comprising keyword-like tags provided by the computer user which are configured to annotate various programming elements to indicate whether the computer user desires the elements to be displayed and, if so, how the computer user desires the elements to be displayed during debugging, the attributes including values of one or more properties of an object of the computer software application, the debugger being configured to allow the computer user to specify for each runtime object which object information is to be displayed and how that object information is to be displayed using attributes.

The system of claim 1 also includes an expression evaluator, associated with the debugger, that examines a display proxy in place of the object, the display proxy is implemented as a private nested class of the object, the display proxy is configured to expose a subset of the one or more properties of the object, the subset excludes implementation-specific properties of the object and a variable display component that presents, to the computer user, those specified values associated with the subset of the one or more properties of the object exposed by the display proxy, wherein only those values specified for display by the computer user are

---

[1] Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

[2] Support for the amendments to the claims and for the new claims is found throughout the specification and previously presented claims, including but not limited to paragraphs [0008]-[0011], [0031] and Figures 1-7.

displayed and wherein the specified values are displayed in the manner indicated by the computer user.

Applicants respectfully submit that the cited art of record does not anticipate or otherwise render the amended claims unpatentable for at least the reason that the cited art does not disclose, suggest, or enable each and every element of these claims.

35 U.S.C. 102 and 103 Rejections

Dandoy describes a system for debugging a software application. A debug agent monitors events from the software application during runtime (Abs.). *Dandoy* also describes using a graphical user interface (GUI) with the debugger and the debug agent (par. [0017]). The debug agent is configured to collect execution data relating to the GUI during runtime (par. [0018]). The execution data is obtained by reading state values stored in memory that are maintained for the application during execution (*id.*). *Dandoy* also mentions displaying an object upon selection of the object (par. [0046]). The user "can automatically have an object's name determined, can determine what occurs when an object is selected, and view properties of the selected object (*id.*). *Kobayashi* is cited primarily to show the use of proxy objects and the display of proxy objects in a GUI (Col. 5:1-18, Col. 7:62-Col. 8:18).

However, while *Dandoy* mentions displaying objects in a debugger GUI and while *Kobayashi* mentions using proxy objects in a GUI, neither reference mentions obtaining attribute information from a computer user that indicates how the user would like various software elements to be displayed in the debugger. Moreover, none of the cited references mentions attributes that comprise keyword-like tags provided by the computer user which are configured to annotate various programming elements to indicate whether the computer user desires the elements to be displayed and, if so, how the computer user desires the elements to be displayed during debugging. The cited art also fails to mention a debugger that is configured to allow the computer user to specify for each runtime object which object information is to be displayed and how that object information is to be displayed using attributes.

Accordingly, at least for any of the above reasons, none of the cited art, alone or in combination, teaches or suggests "a debugger that facilitates debugging of a computer software application, the debugger obtaining from a computer user one or more attributes for attributed debugging, the attributes comprising keyword-like tags provided by the computer user which are configured to annotate various programming elements to indicate whether the computer user

desires the elements to be displayed and, if so, how the computer user desires the elements to be displayed during debugging, the attributes including values of one or more properties of an object of the computer software application, the debugger being configured to allow the computer user to specify for each runtime object which object information is to be displayed and how that object information is to be displayed using attributes," as recited in combination with the other limitations of claim 1.

Moreover, at least for any of the above reasons, none of the cited art, alone or in combination, teaches or suggests "a variable display component that presents, to a-the computer user, those specified values associated with the subset of the one or more properties of the object exposed by the display proxy, wherein only those values specified for display by the computer user are displayed and wherein the specified values are displayed in the manner indicated by the computer user," as recited in combination with the other limitations of claim 1

Accordingly, at least for the reasons outlined above, claim 1 patentably defines over the art of record. At least for any of these reasons, claims 21, 23, 26 and 27 also patentably define over the art of record. Since each of the dependent claims depend from one of claims 1, 21, 23, 26 and 27, each of the dependent claims also patentably define over the art of record for at least either of the same reasons.

35 U.S.C. 101 Rejections

Claims 1-6, 8-20, 26 and 27 were rejected under 35 U.S.C. § 101 for reciting non-statutory subject matter. Claims 1, 26 and 27 have been amended to include a processor and system memory. Applicants submit that this language causes claims 1, 26 and 27 (and their corresponding dependent claims) to recite tangible embodiments. Accordingly, Applicants respectfully request that the 35 U.S.C. § 101 rejection of claims 1-6, 8-20, 26 and 27 be withdrawn.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any

Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at (801) 533-9800.

Dated this 29th day of July, 2009.

Respectfully submitted,

/GREGORY R. LUNT/

RICK D. NYDEGGER
Registration No. 28,651
GREGORY R. LUNT
Registration No. 57,354
Attorneys for Applicant
Customer No. 47973

2446179_1.DOC